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HERNIA CEREBRI.

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Few diseases in the entire range of surgical knowledge have received so limited a share of the attention of the profession as Hernia Cerebri. This is particularly true of this country. I became convinced of this in searching for materials to aid in the preparation of the present article. This may be accounted for principally in the rarity of the disease, and yet diseases equally rare and more obscure are not so much neglected. It cannot be from the discouraging fatality of the disease, for in Hydrocephalus and Tetanus we have mortality typified, and still these receive a liberal share of attention.

The subject of Hernia Cerebri claims additional attention at the present, from its probable increase in military surgery. For it cannot be that the thousands of sabres and the hundreds of thousands of muskets and other emissaries of death now in use, will fail to do some ragged and unscientific trephining. One so interesting, so little studied or understood, and withal so capable of profitable study, should not be overlooked in the vast field now open before us.

Objections have been urged to the name *Hernia Cerebri*, from the fact of disbelief in the nature of the tumor.

The term *Hernia* applies to any tumor formed by the escape of any viscera, or part of the same, from its accustomed cavity. The term *Cerebri* refers to the Brain. Many doubting the character of the tumor or finding exceptional cases in which it was a fungus growth from the brain, have disallowed its cerebral nature, and denominated it *Fungus Cerebri*.

In injuries of the cranium where a tumor forms, in a vast majority of cases—in fact the rule is, that it is the substance of the brain—we would see in that a sufficient reason for retaining its name. There are rare cases in which none of the cerebral substance may be embraced in the tumor, but that should no more change the name of the disease than the exceptional absence of membrane should change the name of *Membranous Croup*, or the name *Hysteria* because of its occasional occurrence in men.

This form of disease can occur under but one condition, the want of cranial support for the brain—an absence of the walls of the skull and the membranes enclosing it.

This may occur through congenital deficiency of the parts, or by their accidental destruction, either by force applied, or syphilitic caries, or it may follow the application of the trephine.

When coming from either of these causes, the membranes are defective primarily, or are destroyed, giving way before the hernia takes place.

These, then, are the circumstances under which *Hernia* of the Brain must happen, but it by no means follows that under the same apparent conditions, hernia will always occur.

Here we meet with one of the most perplexing facts in connection with this fertile and seemingly contradictory affection. In one instance we have an injury to the skull requiring a removal of a portion of it—the membranes are found to be lacerated, and the operation is soon followed by a protrusion of the brain through the newly made opening. Another in-

stance is observed where, so far as we are able to see, precisely the same conditions are present, skull removed, membranes torn, and equal violence applied; and yet no symptoms of Hernia present themselves.

What are the circumstances involving this difference of result?

In order to determine this, we must first determine, if we can, the cause of the protrusion, and before doing this it will be indispensable that we know the nature of the protruded substance.

Reversing the order of the inquiries as stated, then we will first inquire into the substance which we see appearing through the opening. The inquiry comes in properly here, for if it be a true fungus, no force will be needed to cause its increase in size beyond ordinary growth; but if it be brain, another agency must be present.

It might interest us much and profit us little to discuss the opinions held by different observers as to its nature. Suffice it to say, some have maintained it to be granulations of a fungus character, forming on the surface of the brain; others that it was semi-organized blood, while by others it is decided to be brain substance itself. While the latter opinion is now almost universally conceded to be the true one, we must not too hastily condemn the seeming want of care in the observations of those who hold the former. The tumor seen after it is fully formed, is well calculated to deceive any one relying upon its external appearance. From the color of brain matter when it first appears, it speedily becomes covered with effused blood, which darkens by exposure, so that the tumor soon has the color of a clot of blood. When ulceration begins, and this effused blood is thrown off, it assumes the appearance of an ordinary ulcer.

The Microscope, however, is the true test. Whatever we might decide from appearances, when the substance is carefully examined in this way, and decided to be of any given kind, it sets inquiry at rest.

Examinations made with the microscope unmistakably show that the matter which appears through an injury done to the cranium, is in almost every case true brain substance. And yet while this is true, they quite as unmistakably show that in rare cases no brain matter whatever is detectable, the mass being composed of fungus generations or partially organized blood.

Some cases occur in which it is a combination of either or all these elements. This has been most satisfactorily confirmed by the observations of Dr. Adam Clark and Dr. C. E. Isaacs, of New York.

Before seeing an account of the examinations of these gentlemen, I had my mind very fully made up that it could be nothing else than brain, coming to my conclusion from that very satisfactory kind of evidence—my own senses. However easily we are deceived, we are very apt to place implicit reliance in any thing as seen by ourselves, and strong proof is required to disabuse us of our errors. Two cases which had come under my own observation, furnished me with the most conclusive proof that it could be nothing else than brain.

In one of these, the one appended to this article, I witnessed immediately on the removal of the skull, which had lacerated the membranes, the commencement of the tumor. The substance of the brain was easily recognizable, without the possibility of a mistake in its consistence and color—and within the hour or so that I remained with the case, it was plainly to be seen slowly increasing with each arterial pulsation. In the other case referred to, I made an opening through the Dura Mater for the escape of blood. As soon as the contained blood had escaped, the brain substance began to make its appearance through the opening—the patient dying however, in six hours, before a tumor of any size had developed itself.

In the former case, in which I removed a portion of the tumor, the colors of the white and gray matter were clearly distinguishable.

If any thing further were needed to confirm an already proven fact, it might be mentioned that in cases where portions of the tumor have been removed, and death following, a depression will be found corresponding with the removed part. While this furnishes evidence of its brain nature, it also furnishes the objection that the amount of depression found seldom bears any just proportion to the amount of tumor removed. This is accounted for when we remember that the brain is intensely congested, and that the part which is extruded is greatly hypertrophied, and a part which was large on its removal, containing more blood and less than its normal amount of brain, leaves a proportionately small depression on the surface of the brain, when death taking place, and congestion removed, they occupy their normal limits.

Having settled pretty conclusively the nature of this tumor, we will now direct our attention to the more fertile inquiry concerning the agency or agencies at work which produce it.

Suppose a portion of the cranial walls with their soft parts destroyed, from any cause, what constitutes the active agency in causing the brain to protrude through the opening thus supposed to exist? Various as were the theories with regard to the nature of the material of the tumor, they are limited, compared with conjectures as to its protruding force. Of one thing we can have no doubt, that there is an active force somewhere, tending constantly to dislodge the brain. It is not a growth in but the fewest cases, as we have demonstrated. Neither does the brain grow out of or inherently tend to leave its cavity, for every natural law tends to keep it there. Neither can it be that the brain possesses a vernacular ability to extricate itself or pour out as fluids. Every thing tends to show that there is an agency independent of but acting on the brain.

Most of the opinions held have reference to inflammatory action going on in the brain. All, in fact, either have reference to inflammation or its products. Some of them are embraced in the following extract taken from Dr. Weir's article in the *New York Journal of Medicine* for November, 1859:

"Stanley says that to produce a *Hernia Cerebri*, there must be an increase in volume of the contused parts, caused either by a general distension of the blood vessels of the brain, or by the addition of some new matter, as water or pus.

"Samuel Cooper states that *Hernia Cerebri* is a disease connected with deep seated changes throughout a great part of the brain, conjoined with removal of bone. The changes alluded to may be supposed to cause an increase in the general contents of the skull, and thus a disposition to protrusion as rapid as the serum and other fluids are effused.

"Brodie, in compound fractures of the skull, the brain having lost the support which it derives from the *dura mater*, and having its vessels loaded with blood, would probably protrude in the form of *Hernia Cerebri*.

"Guthrie, it arises from a low grade of inflammation of the brain.

"Miller, with Drs. Laurie and King, ascribe its appearance to disorganization of the brain by inflammation.

"Sedillot says the appearance of the *Hernia* is caused by a distended ventricle.

"Propulsion from the arteries is adopted by Flourens and Dr. N. R. Smith."

Thus it will be seen that inflammation, its preludes and accidents, are foremost in the minds of the writers mentioned, as the cause.

Guthrie pronounces it a "low grade of inflammation," with what propriety I am unable to determine. Its occurrence in the robust, and during the continuance of all the initial and most violent symptoms, would seem to disprove this, as well as the fact of its rapid formation after the injury, as most frequently takes place.

The ideas advanced by Drs. Miller, Laurie and King would seem to be disproved by the fact of its immediate occurrence in some cases without time necessary for "inflammatory disorganization."

It is difficult to understand what the exact meaning of

Cooper's "deep seated changes" is, unless it is inflammation and its products.

The "distended ventricle" of Sedillot, is of course from serum or pus, consequent on inflammation.

Stanley has the merit of at least being clearer if not nearer right, though he does not mention inflammation as such.

The succession of phenomena, as they would naturally take place in this accident, seem to me to be as follows: An individual receives a blow on some portion of the head of sufficient force to drive in the skull and lacerate the membranes. The patient falls insensible, and if the injury be not too severe, reaction will come on, and he will return to consciousness—or compression may come on preventing this. What changes go forward in the brain? At the first the stun or shock causing insensibility, during which time the circulation will be depressed, followed in a longer or shorter time by reaction with its increased circulation, and afterward the ordinary succession of inflammatory phenomena. Within a few hours, at most, the patient will be seen, the skull trephined, upon the removal of the bone a tumor will soon occupy the opening, which may be seen to gradually increase in size, with each pulsation of the arteries a distinct swell will be perceived, which will as regularly subside with the cessation of the arterial action. This was most distinctly marked in the two cases which have come under my notice.

First, then, let us determine, if we can, what are the causes at work to produce this calamity, and afterwards decide as far as possible as to the difference in the causes, or their amount, which in one case will produce a Hernia and in another are followed by no such evil effect.

The cranial cavity is a vacuum plenum. There may and I think is, a variation often as to the relative amounts of the contents of the cranium. The quantity of fluids contained in that cavity varies at different times, under different circumstances. I mean that more fluid can be condensed into the cranial cavity than is usually present or

necessary for its normal and healthy action, and this may take place within certain limits without permanent detriment. This fact, though formerly much mooted, seems now well settled. We are of course justified in assuming that the quantity of brain, or the size of its case, does not vary.

We are all familiar with the well known effect of exhausting diseases on children, as shown by its effect on the fontanelles. In the well fed, hale infant, we have at the situation of the anterior fontanelle, the plump, protruding, pulsating brain, arising on a level with or even beyond its bony surroundings at each succeeding arterial pulsation. Let an exhausting disease of any kind seize our little subject, and speedily as the progress of the disease marks itself will our cerebral barometer sink. The brain, unsupported by bone at this point, takes recess from its accustomed compression by extruding with each action of the heart. This will of course depend on having a natural condition of the cranial contents, and then adding the injecting force of the heart upon the blood thrown into the brain at each beat. The combined dilation of the arteries acting on the brain will produce the phenomena we have noticed. Add to the ordinary cranial contents serum or other material, and of course you increase the protrusion to its limits, or compress the brain proportionately. Diminish the amount of complemental serum surrounding the brain, which is sometimes termed the "Hydrostatic bed," or weaken the action of the heart, and no such effect is observable, for the sum of the dilatability of the arteries will only distend the cranial contents to their ordinary level, and instead of a protruding of the brain through the fontanelle, it will only rise to its medium level or fall below it, and exhibit its characteristic appearance under depressing diseases. It is most evident that this peculiar action of the brain in infants is owing to no vessel immediately in the vicinity of the fontanelle, for there is no artery upon whose dilation it could depend, and the action being synchronous with the heart, must depend on it. That the brain sustains vascular pressure constantly, is

well proven by the fact of its sudden removal causing swooning and a cessation of its function. The effect of any abnormal condition causing an increased flow of blood to the brain, or increasing the force of the heart, must add to this pressure. In the sleeping and waking states, a difference is noticeable in cases where absence of a portion of the skull has allowed the observation, in the sleeping state subsiding below the level, while upon waking the mental stimulus causing an increased flow of blood, fills up the organ to its usual wake level.

From these facts, it is fair to conclude that a force acting upon the brain as expansion of the arteries is capable of compressing the brain to a certain limited extent, and under certain circumstances causing it to protrude from its cavity. The brain, accustomed to receive the shock of the heart's action through the arteries, is supported by the membranes and osseous walls; and when a portion of the brain is deprived of this support, the tendency would of course be to give way before the pressure. It is with the consistence of the brain in mind that we could compare this action to that of the piston of a syringe in expelling its contents. A quantity could be expelled by the introduction of the piston, the size of the piston governing the amount thrown out. However small the piston, this would be true, and carrying out the comparison, the force requisite to expel would depend on the consistency of the substance to be expelled.

Hernia of the Brain, as a rule, follows the application of violence to the head. An amount of violence necessary to fracture the skull will seldom if ever fail to produce inflammation, with its attendant congestion and hyperemia. These effects will cause an increased amount of blood to be sent to the brain, and with additional force, which is but a repetition of the old maxim, "Ubi irritationis, ibi fluxus."

I think we are warranted in concluding that the force of arterial action being sufficient to drive the brain before it in a healthy condition, is abundantly able in a diseased condition of it, when we add the increased action of the heart, and the

exaggerated amount of blood which determines to it, and still further if we diminish its capability of compression by condensing it by inflammatory or congestion effusions. The idea I attempt to convey is this: The dilating arteries find a recess for their dilation, so to speak, in the compressibility of the brain. Should this be prevented by an effusion of serum, for example, previously acting on the brain, their expansion would be correspondingly limited, and the brain of a doughy consistence impressed upon at one point will extend itself naturally in that direction in which there is no resistance.

Hence I conclude that the protrusion of brain in this accident is caused by the force of the blood driven into it, the effect of the injury inflicted, which may or may not be accompanied by inflammation, and aided by its effusions.

This being conceded, we now take up that other question previously alluded to, Why in injuries involving a removal of a part of the skull, Hernia Cerebri does not invariably take place?

My friend, Dr. Bogue, of this city, was called to a boy fourteen years of age who had been kicked by a horse, knocked down, comatose, in which he found a considerable portion of the skull in the right parietal region comminuted and depressed, which he removed to find the membranes lacerated and portions of brain forced through their opening. Within twenty hours he was conscious, and from that he had not an untoward symptom. He made a rapid, safe, and perfect recovery.

Here is the counterpart of my own case to all appearances, and yet Hernia did not take place.

As to whether a Hernia will form in any given case, it appears to me will depend on one or more of the following conditions:

First, the amount of original injury. The liability of the brain to be forced through any given opening will of course depend upon the degree of its solidity or consistence. To resume our illustration of the syringe, the thickness or thinness of its contents will determine the force necessary to ex-

pel them. We can easily see the difference in trying to throw through the syringe successively water, syrup, and tar, the first passing through with perfect ease, the second requiring more force, and the latter scarcely capable of going through at all, though all are liquid. So I take it will the ability of the forces at work in extending the brain depend on the solidity of the brain substance.

The amount of force occurring in the production of injuries of this kind will of course vary very much. In some being simply enough to fracture the bones, without being powerful enough to extend its destructive effects to the substance of the brain in the injury of its structure. In others, as falls from heights, violent blows, &c., the injury not only breaks the bones and lacerates the membranes, but extends its influence to the brain, producing contusion of its substance, and if examined will be found soft and pulpy. The examination of one of my cases proved the existence of this condition, the brain corresponding with the seat of injury being completely broken down and in a softened and semi-fluid condition.

It is evident then that this softened state in immediate juxtaposition with the opening will greatly predispose to its occurrence. In addition to the condition of the brain thus produced by the original force, the other conditions accompanying violent injuries will be present—as a high grade of congestion, inflammation, &c., which we have concluded are the active agents at work in the production of the Hernia, and therefore will give as additional reason to expect the occurrence of this accident, the brain being supposed to swell when unrestrained under inflammation as other organs.

Second, consistence of the Brain substance as depending on abnormal softness or age.

Any one accustomed to making post mortem examinations must have noticed the different degrees of hardness in different brains. Some are of a firm and comparatively solid consistence, while others are but little harder than thick cream. This, with other conditions, give us our presumed predisposition.

An idea with reference to the enlargement of the skull and the connection of age with Hernia is advanced by Humphrey in his work on the Skeleton.

The head of the child as we know is disproportionately large compared with the other parts of the body. The economy of this arrangement he contends is that from the conformation of the cranium its enlargement must take place very slowly owing to the fact that it can increase in size only by the growth which takes place on the contiguous margins of the bones, and by the resorption from their inner and deposition on their outer surfaces.

The enlargement of the capacity of cranium then, must needs be very slow. According to his theory, the head of the child, large in the first place, contains a brain with a large per cent. of water added to the normal elements of brain, and as a consequence is soft and flaccid. Instead of the brain and head enlarging rapidly as the developing mental faculties demand new and increasing supplies of brain substance, instead, I say, of the brain's enlarging to supply this entire demand, while it can grow but slowly, it adds to its power by condensing its structure, so that were it not to enlarge at all it might contain a considerable addition of cerebral matter.

The Hernia Cerebral part of this fact is that the brain of a child is softer than the adult, and that it continues so until the complete development of the other parts of the body. Youth then, I infer, is a predisposing cause of the disease. My idea is borne out by the facts in the cases collected by Dr. Weir, before alluded to. Of fifty-five cases, the average was twenty years. When we consider that those very young are seldom exposed to dangers which would likely produce this injury, that they occur from severe blows received in fights, falls from heights, and in mechanical pursuits not followed by children, we can understand this seeming high average age. In Dr. Buck's cases, seventeen were under twelve and twenty-six under twenty years of age. Ericksen in his work mentions the fact of its more frequent occurrence in children.

Still another circumstance governing its occurrence will be the size of the original osseous opening. As the enlargement of the opening may be regarded as a part of suggested treatment, the philosophy of it will more properly come in there, to which place the reader is referred.

The occurrence of Hernia, after the application of the Trepbine, requires some notice before leaving the productive causes.

Here it might be said we lack the inflammatory action necessary to produce this effect. We must remember that the Trepbine is always used to remedy a disease of some kind effecting the brain, and applied in its immediate vicinity. What condition the brain may be in in cases in which it occurs cannot of course be determined, but I think we may conclude that one of the conditions mentioned, either a distending force applied to the brain or an unnatural flaccidity of it. The brain under the influence of disease may have softened, and the application of the trepbine would be followed by more or less vacular excitement.

Dr. Gross, in his work, mentions that the worse case he witnessed followed syphilitic destruction of the walls and membranes. He does not state the nature of the tumor, however, whether it was brain matter or fungus granulations. If the former, the same explanation would naturally follow for this case as the last—softening and vascular action.

The question would very properly be asked here, Why it is that Hernia occurs often a number of days after the receipt of the injury? Why does it not take place immediately after the injury is inflicted? This class of cases I think can be accounted for, not from the violent primary congestive action or from contused condition of the brain, but that it will be found to happen in connection with the products of inflammation, either in the form of an abscess or serous effusion, as we have in a distended ventricle, or a collection of blood. Dr. Buck says, "in all the cases he examined an abscess was found in the substance of the brain or upon its surface in the

immediate vicinity of the Hernia." The formation of these depots of serum and pus would correspond in point of time with the date of the delayed Hernial protrusion, and I think in justice might be assigned as the cause, when the violence of the vascular action does not produce it at an earlier period.

The prognosis in this affection is very uncertain. With seemingly small injuries, many die, and those apparently helplessly hurt, recover. This depends, I doubt not, on the difference between the apparent and real amount of injury. In individuals where there is not too much inflammatory element, where the injury is not so severe as to give rise to extensive constitutional disturbance and the constitution good, we have a right to anticipate a favorable result with prompt and efficient treatment. Too often the amount of injury received by the brain is beyond our cognizance and from a vitiated constitution thwarting our efforts, the result is fatal. I could by no means agree with Dr. Gross in the opinion, however, that "recovery is an extremely rare occurrence in any case, however simple," when I remember that sixteen out of the thirty-three cases of Dr. Buck recovered.

The length of time occupied by this malady is subject to much variation, the patient dying occasionally as early as the first day, and again lasting for months, dying worn out of nervous irritability; in the former case the the result of the overwhelming nature of the injury, and in the latter of centric irritation.

John McNulty, Irish boy, aged 14, was engaged driving a horse hoisting coal from a vessel; while thus occupied, he got into a quarrel with another boy, who seizing a piece of coal threw it at him, striking him a little above and outside the left frontal eminence. He was taken up and carried home insensible, and Dr. Baltzell called to see him nextday, October 4, 1859. I accompanied the Dr. to see him and found him only partially conscious, pulse 128, skin hot, pupils dilated, with an incision in the locality named. Upon examination, we found a fracture, and the fragment depressed. By request of

Dr. B., I removed the portion of bone, which was readily done by enlarging the incisions, the fragment being entirely detached was easily removed with the bone forceps. It was irregularly triangular, the sides of which were as near as may be one and a half inches. Upon removing the bone, the membranes were found cut through to the extent of half an inch in length. The wound bled but little and was closed in its upper portion. Before closing the wound, I noticed in the situation of the opening through the Dura Mater, what I supposed to be a portion of brain beginning to protrude. It was of a greyish white color, and pulsated with the action of the heart. It being my first experience with this class of affection, I did not feel sufficiently certain of its character to decide on its treatment. Accordingly we contented ourselves with closing the wound, as I have said, applied cold water to the head, and ordered a saline cathartic. We visited him about 5 P. M. same day, and found him about same, except consciousness, which seemed improved, though the cathartic had not operated. The tumor which we noticed at our last visit, is increasing in size. Cathartic ordered repeated, and cold continued. The next morning, (5th Oct.,) upon visiting him, we found there had been a free action of the cathartic, with a decided improvement in his general symptoms. He was entirely conscious, pupils more natural, skin cooler, and converses sensibly. Complains of pain in his head, not particularly located at the wound. The Hernia has increased in size until it now amounts to that of a small hazel nut. The Dr. having kindly given the surgical management of the case to me, I concluded to shave off the protruding portion of brain, which I did on a level with the surrounding part, upon doing which I noticed an enlargement of the original opening through the Dura Mater. I then prepared a compress the size and shape of the osseous opening, saturated it with Mur. Tr. Iron and applied, it, covering it with another dry one, both of which were firmly bandaged on. The removal of the brain did not cause the slightest pain, nor was it followed by any hemorrhage.

The next day, 6th, we found him doing well, no inconvenience from the dressing, had suffered no additional pain, slept moderately well, still somewhat feverish, but every way seemed quite as well as we could expect. Upon removing the dressing, we found it had retained the brain in position perfectly, and had fulfilled my expectations in the formation of a crust over the surface of the brain. Dressing applied as before.

On visiting him the 7th, he seemed much improved bright, and cheerful, no pain or uncomfortable feeling about his head; his wound appeared in unexpectedly good condition, the brain being quite to its level, pulsation in it almost ceased, with so many good symptoms and the brain so firm, I was misled by appearances, removed my dressing, closed the wound over it, and applied cold water dressing. A visit that evening proved I was mistaken in the firmness, for unrestrained it had already began to enjoy its liberty, and was bulging. The following morning found it protruding beyond its bony margins, the Dura Mater having given way probably under the influence of the Tinc. Iron, the tumor completely filled the opening, being in substance the size of a medium hickory nut. This I removed completely as before with no different results. No inconvenience was experienced by the patient, either at the time of the excision or afterward. The Tr. Iron was reapplied and continued from day to day by Dr. Baltzell, with whom I saw the case frequently until the cure was perfect. Within a few days after the application of the Tr. Iron, suppuration began on the surface of the brain, the crust which was formed loosened, but it was allowed to remain, and a fresh compress saturated with the Iron applied; the crust thus formed being an exact mould of the surface of the brain, gave equal pressure on all parts of it through the compress applied over it. Upon the removal of the brain each time, there was no difficulty in distinguishing it, the color of the white and gray matter being easily recognized.

The case progressed favorably, though it was several months before he entirely recovered, and I think nearly five months

before the compress was left off. The experiment of leaving it off was never repeated until the brain became firm.

He recovered perfectly, no paralysis or unpleasant symptom remaining, the opening through the skull closing by fibrous membranes, and that it has left no mental defect is proven by the fact that he now pursues the calling of a newsboy in our streets, and is one of the smartest of that crafty class. In the application of pressure no unpleasant symptoms manifested themselves, though it was firm and constant. I saw the boy a few days since, and find the opening closed by a very thin layer of tissue, and can easily be compressed. No appearance of any thing firmer being formed, though it is near three years since the accident.

On no part of our subject is there such direct antagonism of opinion as on the treatment, our most distinguished authorities taking directly opposite views. This difference is mainly on the questions of excision and compression.

Guthrie disapproves excision, and depends on moderate pressure, lightly applied while the tumor is increasing, augmented while it is decreasing.

Cooper and Miller advocate same.

Stanly says compression is out of the question, and is undecided as to the use of the knife.

Erickson advocates slicing off the brain to the surrounding level, and applies firm and sustaining compression.

From having treated my case successfully, I naturally sustain the views of the latter. There are many cases in which a modification of the treatment would be rendered necessary. As, for instance, in which a tumor had already formed of unusual dimensions, as occurred in the case reported by Dr. Mears, of Indianapolis, in the Northwest Medical Journal for October, 1848, when it arrived at the unusual size of "a section of a middling sized orange." In this case no other treatment is reported except slicing small portions away from the surface of the tumor, the patient recovering, slightly paralytic, on the opposite side. Removing so large a portion of

brain could be nothing but deleterious. In such cases, with moderate slices could be well combined styptics, as the Tinc. Iron, and moderate and judiciously applied and sustaining compression. When, however, the surgeon is called at the time of the accident, there is but little necessity for the formation of such tumors. If the proper remedies are used, I should have little fear of any such result. As soon as the protrusion is discovered, prompt steps should be taken for its arrest. Antiphlogistic measures should be adopted and carried as far as the case admits, and the support of a compress applied over the part. The kind of a compress there is a variety of opinions, but I think a linen compress as good as any thing firmer, being entirely sufficient to retain the brain, and can be saturated with any desirable fluid. I used the Mur. Tr. Iron on account of its astringent qualities, and it answered so perfectly I should feel much confidence in repeating it.

There is a remedy which has since occurred to me in studying the cause of this disease, that I think cannot fail to exercise a controlling influence over it. I refer to Veratrum Viride.

If, as I have supposed, most of the curable cases are caused by arterial action, a ligation of the forcing organ cannot fail to exercise the most happy influence, and I should feel great confidence in this as one of my remedies in another case.

The application of compression to a tumor of any size previous to excision, I deem of doubtful utility. I think the suggestion of Dr. Buck eminently true. "May not," says he, "this protrusion be a salutary resource of nature to relieve the brain (often only temporarily) from the compression which an increased afflux of blood might occasion;" and therefore it could be nothing but the worst of practice to force back into the skull that which nature, under desperate circumstances, was compelled to cast away. After the brain was once extruded, and the vessels had expanded under the relaxation, the risk of compression of the brain would be vastly greater

in repositing the brain than under the original support of a compress.

As a final addition to our treatment, I may mention the suggestion of some, that an increase of size of the original opening would suffice to prevent further increase of size of the hernial mass. This idea is based on the supposition that were the compressed brain allowed to expand itself sufficiently by the removal, or enlargement of its walls to the required extent, it would of course have no tendency to form a Hernia, because it would then expand symmetrically. So we reason if any considerable portion of skull were removed, a corresponding portion of brain could expand and would afford room for the expansion of the distended vessels, and render its occurrence correspondingly improbable. Suppose, for instance, the brain had no restraining case of any description, and could expand and diminish in size with each varying circumstance of the circulation, then of course no Hernia could occur. If one half the brain case were removed neither would it, because there would still be room for adequate expansion. May not this have been the reason that in Dr. Bogue's case there was no Hernia, the opening being of unusually large size? I have measured the bones and find not less than $2\frac{1}{2}$ square inches removed. This treatment embraces the idea that a portion sufficient to give room for this enlargement would avoid the increase in size altogether. How far this has been attempted, I am unable to say; but it appears to me that in order to give the needed room, the Dura Mater must needs be removed to a corresponding extent, for we know Hernia does not form unless it be broken, owing to its want of elasticity. No doubt the principle is correct, but with this fact in view, it looks to me to be hazardous practice.

The exposure of a portion of brain of requisite size, for such a purpose, with the possible complications to which it may give rise, and the encouragement given to prompt treatment, would lead me to doubt the expediency of a practice which would add a risk to an already very mortal accident.

CASE OF HYDROPS AMNII.

By A. E. JOHNSON, M. D., of St. Anthony, Minnesota.

May 15th, 1862, I was called to attend Mrs. L., a lady about thirty-five years old, pregnant with her sixth child. She had arrived at full term of her pregnancy. She had suffered severely with headache, and also extreme dyspnoea for the last two months, which became intolerable on assuming the recumbent posture for more than a few moments at a time. She was also harrassed with violent cough for six weeks prior to her confinement. The abdominal walls were distended to their utmost, so much so that she suspected a triple or quadruple birth. The examination per vaginam detected the os well dilated. The pains had been slight and irregular for eighteen hours. The presentation could not be discovered. The membranes felt rough and very tense. A second examination, at the end of two hours, discovered no advance. The contractions had slightly increased in force and frequency, though still irregular. On placing my left hand upon the abdomen over the fundus of the uterus, and making pretty smart indentations upon the strong firm membranes with the index finger, the child was distinctly felt by the left as it impinged against the walls of the uterus and abdomen, pressing hard against the zyphoid cartilage of the sternum. I at once concluded that there was a great excess of liquor amnii, above the normal amount. I at once proceeded to rupture the membranes, and after several unsuccessful attempts with the finger I succeeded by the use of a strong knitting needle, there being no other instrument at hand, after considerable exertion.

The escape of an almost incredible amount of liquor amnii gave great relief to my patient, and to which the before enormously distended and apparently half paralyzed uterus soon responded with energy sufficient to deliver a very small well formed, with one exception, feeble female child by the breech

presentation. With much exertion the child was resuscitated. The time occupied in its delivery after the rupture of the membranes did not exceed forty-five minutes. It lived but twenty-four hours. There was an abnormal growth upon its right cheek about the size of an ordinary nipple.

After waiting a proper time the placenta had to be extracted, one-half of which was above an almost irresistible hour-glass contraction. The membranes were extremely thick, and presented upon their foetal surface the evidence of many inflammatory patches. The placenta was small.

The exact amount of liquor amnii could not be estimated. The patient was laying upon a thick feather bed and a straw tick, well filled beneath it. Over this was a quilted cotton comfortable folded in four thicknesses, and the patient's quilted skirt loosely around her person. The amount of water which escaped was sufficient to saturate all of these and two full gallons passed through, which was caught in a pail beneath the bed. The whole amount, I think, could not have been much short of four gallons.

I had attended this lady four times in child birth prior to this, and nothing unusual had occurred.

Query: What was the pathological cause of this enormous accumulation?

Here was no constitutional peculiarity or syphilitic taint, which Churchill and Burns think "may be amongst the more remote causes of this disease." In this case, its cause must have been an inflammation of the amniotic membrane, the evidence of which was well marked.

M. Mercier, M. Davillier, M. Desmarais, M. Chailly, and others, speak of inflammation of the amniotic membrane as the most frequent cause of dropsy of the amnios.

Drs. Burns, Remsen, Kyll, and others, think "it may be connected with diseases of the placenta, such as cysts, tubercles, induration, dropsy, &c." But in this case, the placenta was to all appearance healthy and natural.

SELECTED.**ON THE CLIMATE OF THE MOUNTAIN RANGES
OF CALIFORNIA, IN RELATION TO THE
TREATMENT OF PHTHISIS.**

By JAMES BLAKE, M. D.

In some former papers on Phthisis, published in this Journal, I have recommended the Coast Range of mountains as a preferable locality for the out-of-door residence of consumptive patients during the summer months. At the time I wrote these articles, I had no exact data as to the climate of this locality, my preference being founded on the beneficial influence that a camp life in these mountains had exerted in arresting the progress of the disease, in many of the patients I had sent there. At my request, one of my patients, who passed the last summer there, took the trouble to make a record of the temperature during July, August and a part of September, and the data I have thus obtained, furnish a sufficient explanation of the beneficial effects observed to follow a residence in these localities.

The following figures will enable the members of the profession to judge of the advantages of the climate for consumptive patients. They can, I am sure, be relied on, so far as they go, as I furnished the thermometers, one of which was suspended at the N. W. side of a tree, for the morning and noon temperature, the other on the N. E. side for the evening temperature, and the observations can be depended upon as correctly recorded. The hours at which the observations were taken, do not probably furnish the extreme temperature, as at least in July, the atmosphere has been somewhat warmed at 6 A. M., but the total variations are so slight, that the subtraction of a degree the 2 P. M. temperture, will probably afford a very close approximation to the truth. The locality of the camp was at a supposed elevation of 4,500 feet, about fifty miles north west of Colusa, and about twenty miles from the eastern foot hills of the Coast Range. For the sake of

comparison, I have appended a statement of the mean temperature, and of the extremes, as observed at Iowa Hill a locality in the Sierra Nevada, at about the same elevation. The observations were not made at the same time, but in the year 1855. They, however, together with others, show that the climate of the Sierras very closely approximates to that of the Sacramento valley, and therefore it is far less favorable as a summer residence for consumptive patients than that of the Coast Range.

Observations of the temperature were taken three times a day, 6 A. M., 2 P. M., and 6 P. M. I have only, however, given the monthly average of these observations, the extreme daily range in the month, and the mean daily range; and also the extreme range observed during the month. These data afford sufficient elements to judge of the climate, as far as its temperature is concerned, and when compared with the figures obtained from observations made in the Sierra and the valleys, plainly show wherein its advantages consist.

COMPARISON OF TEMPERATURE, AS OBSERVED ON THE COAST RANGE, AND AT IOWA HILL, ON THE SIERRA, AT AN ELEVATION OF ABOUT 4,300 FEET.

Mean Temperature for the Month.

August—Temperature at Camp on Coast Range.

	6 a. m.	2 p. m.	6 p. m.
Mean temperature	55.3	69.5	63.7

Highest temperature during the month, 74; lowest, 47; mean daily variation, 14.2; extreme variation, 29; extreme variation on any one day, 18.

September—First Fourteen Days.

6 a. m. 2 p. m. 6. p. m.
55° 55° 55°

Highest temperature during the month 76; lowest 45;

mean diurnal variation, 13.5; extreme variation during the month, 31; extreme variation during any one day, 18.

The above figures show that, as regards temperature, our Coast Range, during the summer months, affords one of the most desirable localities for the treatment of our phthisical patients.

The temperature for July, is perhaps, that which is the most agreeable for living out in the open air—the thermometer never below 57 deg., and never higher than 82 deg., and with a variation, during the twenty-four hours, never greater than 20 deg. The comparison between the Sierra, at the same elevation, affords a striking contrast, for, whilst the average diurnal variation, in the first case, is only 14 deg., that of the Sierra is nearly twice as great, or 26.6 deg. An analogous contrast is evident through every important thermometric element of the two climates.

But it is not only in the advantages, as regards temperature, that the Coast Range affords a most suitable climate for phthisical patients, as in this respect it might be equalled, and perhaps surpassed, by many other localities, as for instance, the Sandwich Islands, Madeira, and other sea climates; but in this State, and, probably, in this State alone, are to be found combined all those climatic influences, which are even of greater importance than mere temperature, in the treatment of the disease.

Together with this agreeable temperature, the atmosphere is dry and bracing—almost always calm, and the sky is unclouded for months together. The last summer, there was no rain from the beginning of May until the end of November, so that my patients were not driven in by the weather until November. Towards the middle of September, they left their summer camp, for a lower point on the mountains, gradually descending as the season advanced. Unfortunately, I did not have any observations for other summer months, as it was not until they reached the greatest elevation, at the beginning of July, that observations were commenced. The climate, however, of the lower ranges, is analogous to that at greater elevations, and affords one of the most desirable localities for our patients, during the early summer and late autumn months.

Another important advantage the Coast Range of mountains possesses, is in the abundance of game, so that a good hunter can always keep the camp supplied.

With the return of winter, however, our patients necessarily have to seek the badly ventilated, sunless rooms of our habita-

tions, a great deal of the good that has been done during the summer is apt to be lost. Should the case be not very far advanced, and the improvement during the residence in the mountains have been as great as usually takes place, with care, our patients can hold their ground, during an average winter, in our coast valleys, or on the lower hills of the Sierra. But where they can manage to leave, they can, by going a few hundred miles down the coast, again enjoy all the advantages afforded by their summer residence in the mountains.

In the northern parts of Mexico, the rainy season, which corresponds to our winter, sets in in June and July, and is over by the end of October or beginning of November; after which time, no rain falls until May or June. There are many points on the coast, where the mountain range of the Sierra, commences at a slight distance from the sea, and, although the low land is unhealthy, being subject to malarious diseases, yet as soon as a moderate elevation is attained, the climate becomes dry and bracing, and very analogous to that of our own Coast Range during the summer. Fortunately, these localities—San Francisco and Mazatlan, is taking place, either by steamer or sailing vessels, three or four times a month. The country is well settled, and as large mining operations, conducted by our countrymen, are being carried on there, all sorts of supplies can be procured. About eighty miles back from the coast, the mountains already have an elevation of some thousand feet, and, although I have no accurate meteorological observations of the climate, yet, from the description of it by ties are now easily reached, as the communication between those who have passed the winter there, I am confident that it must be very analogous to that of our Coast Range. Our patients thus enjoy a perpetual summer, or, at least, a climate in which they can pass the whole of the year in the open air.

I believe, in no other part of the civilized world, can such favorable condition be found for treating phthisis, as on this coast. That the disease cannot be cured by drugs, is a fact becoming generally admitted by the profession. That it can be cured by out-door life in the mountain air, is a fact of which I have seen abundant proofs, and which others, who have crossed the Plains, have had opportunities of verifying. My own opinion is, that a large proportion of the cases of phthisis, will be found to yield to one or two years' open air treatment, and where the circumstances of the patient enable him fully to carry out such a plan, this coast offers, I think, by far the most favorable locality of any yet resorted to by phthisical patients—*Pacific Journal.*

CONSIDERATIONS IN REFERENCE TO HEALTHY, IN CONTRA-DISTINCTION TO DISEASED JOINTS.

From a Paper by JOHN SWINBURNE, M. D., Albany,
New York.

In the Philadelphia *Medical and Surgical Reporter*, Vol. VII, p. 40, will be found an article, quoted from the San Francisco *Medical Press*, for July, in which Dr. E. S. Cooper lays down what he calls new surgical principles, and enumerates them from 1 to 7. In the main, I think the Doctor correct, but while all this may be true of a diseased joint, I would make the pertinent inquiry:

1st. Were you, as surgeon, to find a healthy knee joint, opened for two, three, or four inches in length, with a clean cutting instrument, would you allow it to heal by granulation? or would you rather close it by metallic sutures, as carefully as possible, with the object of obtaining union by the first intention?

2d. Were you called to treat a punctured wound of the same joint, would you close it, allow it to suppurate, or would you rather convert it into a full and free incision?

3d. In the operation for the removal of false cartilages from the joint, should your incision be large and free, and allow the same to heal by granulation? or should you strive to remove the cartilage by subcutaneous incision, and so heal the wound by the first intention?

There are some important considerations in reference to healthy, in contra-distinction to diseased joints, which require further consideration, and I candidly confess (with my limited experience) that I am unable to give a solution of them. I would, therefore, invite the profession to investigate, carefully, this important and intricate matter.—*Philadelphia Med. and Surg. Reporter*.

[*To 1st Enquiry*.—We would answer, that the parts should be brought together, with the view of effecting healing by first intention; but, at the same time, if the least purulent matter should be found in the joint afterwards, we would re-open it at once, and then make the wound heal by granulation.

To 2d Enquiry.—We would not convert the small punc-

tured wound into a free incised one, immediately upon being called to such a case, if of recent occurrence, but would do so at once, afterwards, if we discovered that there existed a single drop of purulent matter in the joint.

To 3d Enquiry.—In removing foreign bodies from the knee joint, we always make an incision sufficiently free to remove the substance readily, and then, generally, favor healing of the wound by first intention, by bringing the parts together, but never resort to the subcutaneous section. We have, however, operated several times by direct incision, and afterwards applying lint in the wound caused it to heal by granulation, and in every case with favorable results; but were led to quit the plan in consequence of concluding that it kept the wounds somewhat longer in healing.

The rule we have fixed upon, after modifying our practice somewhat from that pursued when first we departed from the beaten track by disregarding the admission of atmosphere, is to favor the healing of fresh wounds of healthy joints by the adhesive process, but wounds of suppurating joints we make to heal by granulation.

REMARKS.—In the treatment of all wounds about the knee joint, whether accidental or made by the knife, we apply a roller around the limb as tightly as the patient can conveniently bear, commencing at the toes and continuing half way up the thigh. The pressure of the roller has a great influence in interrupting the mischievous process of suppuration and disorganization, which is the bane of these cases. A single drop of purulent matter is first generated from some portion of the injured synovial membrane, which, being of a soft and vascular structure, is disposed to suppurate under the influence of a slight inflammation; and this disposition to suppuration in a synovial membrane, together with the extent of development of this structure, in and around the joint, accounts for the rapidity with which purulent matter accumulates, in many cases after the slightest wounds, such as those made by the puncture of a penknife. The pressure of the roller interrupts, to a considerable extent, the flow of blood to this as well as all other soft structures entering into the formation of the joint.

Around the joint are numerous *bursæ mucosæ*, in which the disorganizing process often begins, though it may subsequently involve the entire knee joint. This is, by far, more frequently the case than any one not much accustomed to making inci-

sions into suppurating cavities about the knee would form any idea of. We have repeatedly made incisions into what we supposed, prior to the operation, to be suppurating joint cavities, but found the purulent collection altogether external to the capsular ligament. In these cases, the same excruciating pain and rapid accumulation of pus took place as occurs when the joint itself is previously involved. The application of a roller, immediately upon the reception of an injury involving the extra capsular tissues alone, would, in many instances, prevent the formation of purulent matter at all; but, when once it commences, nothing but opening the parts, freely, offers any prospect of an early cure.—*Editor San. Francisco Med. Press.*

SMALL POX AND VACCINATION.

By H. GIBBONS, M. D.

At the present juncture, when there exists an epidemic condition favorable to the development of variolous disease, it is important, both to the profession and the public, that our knowledge of the means of prevention, by vaccination and revaccination, be brought out and spread abroad. The following general conclusions may be regarded as tolerably well established by observation and experience:

In many persons a single vaccination is an effectual protection from Small Pox through life, whilst in others it appears to "wear out," to a greater or less extent.

Persons are very seldom attacked with Small Pox within five years after vaccination.

The age most liable to the disease is from 15 to 30 or 35 years.

When an epidemic influence favorable to Small Pox prevails, one person at this age out of every four or five exposed to the infection, will take the disease.

While Small Pox in the unprotected is fatal in at least one-fourth the cases, it is so modified after vaccination as to cause death in only one case out of fifty, or perhaps a hundred.

Inoculation is a surer protection than vaccination; but persons taking the disease after inoculation have it more violently.

Vaccination will not take a second time, to produce a *genuine* vesicle, in more than one case out of 80 or 100. And even then the vesicle is apt to be small and the scab thin.

Revaccination will always produce *some effect*, if the matter be recent and genuine. The arm may itch for a day or two, and the irritation vanish; or it may proceed to swell and fester, remaining sore for several days; or it may progress still further, causing much inflammation and often fever, being as severe as the genuine vaccination, and even more so.

The effect of revaccination depends much on the manner of performing the operation. If the virus be tucked into the skin with two or three small punctures, it will not cause much of a sore, unless the system be susceptible, in some degree, to the true cow pock. But if the skin be extensively scratched or abraded and the virus applied, it will nearly always make a severe sore, which may be nothing more, however, than a poisoned wound.

If the vaccination inflames and becomes sore in less than a week, it is spurious.

Though revaccination produces nothing more than spurious, irregular and imperfect vesicles or pustules, yet it appears to act on the system so as to protect it from the Small Pox.

When the Small Pox makes its appearance in a city or neighborhood, and shows a tendency to spread, every person, between 15 and 40, who is exposed in the street or in his business, should be revaccinated. This epidemic character of the disease is not apt to occur more frequently than once in five or six years.

When an individual is seized with Small Pox, every person, old or young, residing in the house, or frequenting it, should be immediately vaccinated. This has been my invariable practice—in Wilmington, Delaware, where the disease prevailed, extensively, in 1828; in Philadelphia, where it was slightly epidemic, I think in 1847; and in San Francisco, where it prevailed about nine years ago; as well as at other times, when occasional cases occurred. *I have never known a single instance* of the disease spreading or being contracted by a second member of the family, when this precaution was adopted.

The production of a sore arm by vaccination is no proof that the individual could have taken the Small Pox. Persons over forty years of age, who are generally secure from this disease, will take the revaccination in the same manner as those who are younger.

Some individuals will never take the vaccine disease, though the operation be repeated year after year. They possess a natural exemption. Experience shows that these persons are also exempt from Small Pox.

It often happens that children will not take the vaccination at one time, owing to some peculiar condition of the system. But, in a few months, a change takes place, and they become susceptible of the disease. If it be repeated, year after year, without success, the individual is regarded as exempt for life, both from the cow pox and the small pox. These natural exempts may be about one in a thousand in the population. I have lately vaccinated two individuals, both of them heads of families and near the age of thirty, who had been vaccinated, in past years, again and again, without effect, and yet who took the cow pox in its genuine form in my hands. These were, to me, anomalous cases. One of them, a lady, had nursed persons with the Small Pox, and resisted the infection. It is quite probable they would both have taken the disease at the present time, if exposed to it.

I am aware that some physicians consider the genuine cow pox to result from revaccination in a much larger proportion of cases than above stated. But I think a rigid inspection of the arm will show that the sore is wanting in some of the characteristics of the true kine pox. It may be a pustule instead of a vesicle—it may lack the central depression—it may not present the *regular* areola. The sore may approach very nearly to the genuine disease, and yet be imperfect or spurious.—*San Francisco Med. Press.*

CASES OF REFLEX AND INFANTILE PARALYSIS.

(*Under the care of Dr. Brown-Sequard.*)

In closely contrasting the cases of paralysis under the care of Dr. Brown-Sequard, it is observable that in all the great number of cases which come under treatment by that physician, he rarely fails to detect indications of paralysis of both sides of the body. It is very common to read, to hear of, and even to see, cases of so-called paralysis of one arm or of one leg, or solely of one side of the body; but the accurate tests which Dr. Brown-Sequard applies almost invariably bring out proofs that parts of the body on the other side also participate. The universality of this observation has an interesting bearing upon the physiology of the brain, since it seems to point to the fact that there is no complete decussation of the brain-fibres, but that some remain to be concerned in the innervation of the same side of the body. In the treatment of paralysis, Dr. Brown-Sequard first ascertains by the proper inquiries

whether the disease was originated in the membranes or the substance of the nervous centres, and then proceeds to limit the diagnosis to the precise point and special character of the lesion. Iodide of potassium is a remedy largely and usefully employed here. Local blistering, the ferro-citrate of strychnine, together with blood and nervine tonics are the other most common remedies. Amongst the most interesting are the causes of reflex paralysis, of which the study opens up comparatively a new field of observation, and suggests therapeutic resources fertile and good.

A remarkable case seen last week was that of a child who was stated to have "caught cold" eighteen weeks before, and who was the subject of a reflex paralysis of the eyelids and of some of the muscles of the eye. There was ptosis, prominence of the ball, and incapacity of abducting or adducting the eye, or of executing its rolling movements. Here, then, there was paralysis of the third, fourth, sixth, and seventh nerves. It was certainly reflex, for the iris was contracted firmly, so that one branch of the third was irritated and not paralysed. Any central cause which must have operated by causing pressure both behind and in front of the pons Varolii must, indeed, have been of considerable magnitude. But the cause was evidently reflex. The treatment advised was iron with minute doses of strychnine, and to be carefully watched; local Faradization, or the local application of heat by cloths to the surface.

In such a case, accurate diagnosis is the main step to cure. In investigating the cases of paralysis amongst children, Dr. Brown-Sequard points out occasionally the evils which have accrued from the application of term infantile paralysis to the paralytic affections of children, as though they were of one generic kind, and to be treated on a uniform general principle, and apart from the varied forms of paralysis seen in older persons. Dr. Brown-Sequard also sometimes points out cases of paralysis arising from a very wide range of differing causes almost as great as that in the case of adults. In one child it has followed an eruptive fever, and is the result of a sudden effusion into the ventricles of the brain; in another, the child is observed to cry out at night, to start in his dreams, and to raise his hand to his head. Here tubercular meningitis may be looked for. In a third, peripheral irritation may be discovered. These distinctions are of the utmost importance in treatment; and, before any course is undertaken, it is necessary to make out the cause and character of the paralytic affection.—*London Lancet.*

EDITORIAL AND MISCELLANEOUS.

Researches and Observations on Pelvic Hæmatocèle. By J. Byrne, M. D., M. R. C. S. E., Resident Fellow of the New York Academy of Medicine, &c. Monograph. From the Author. 1862.

For this well written pamphlet which contains the most complete and perspicuous *resume* of the subject we recollect to have seen, combined with original observations of an important character, we return sincere thanks to the author. It fills a hiatus in American medical literature which in the author's words, for the honor of our progressive science, should no longer exist. About thirty years since, Prof. Recamier, first among the moderns at least, discovered and described this somewhat rare form of pathological lesion. Velpeau, Tilt, West, Bedford, but especially Nelaton, have since contributed from their experience, and occasional articles on the subject have appeared from various pens.

The author prefers the nomenclature Pelvic h. to "recto-uterine," "retro-uterine," or "peri-uterine," "as the extravasated fluid does not invariably select either of the locations thus indicated," a case illustrative of which proposition is given.

It occurs most frequently between 25 and 35 years, when the sexual system is in its greatest vigor, and consequently the pelvic organs more prone to congestion. Does not depend merely upon disordered menstruation, but upon some pre-existing lesion. He thinks that 80 per cent. of the recorded cases have depended on ovaritis resulting in a varicose condition of the blood vessels, softening of the tissues, &c., ultimately terminating in rupture and extravasation.

We are particularly pleased here by a suggestion in a foot note: "Varicosity of the veins may undoubtedly be a cause, as well as a consequence, of ovarian inflammation—perhaps the former more frequently. If so, would not the term *Ovarian Phlebitis* more correctly express the actual state of the parts affected?"

The pre-disposing and exciting causes are:

"1st. Inflammation of the uterine appendages and its consequences, oftentimes the primary, and by far the most frequent among the *predisposing causes* of pelvic haematocele. (2d.) Habitual constipation of the bowels, and morbid growths interfering with the free return of venous blood, and thereby producing a varicose condition of the vessels. (3d.) A haemorrhagic diathesis from a disordered state of the blood. (4th.) Tubular, uterine, or vaginal occlusion, obstructing the normal secretion or giving rise to regurgitation through the Fallopian tubes. The immediate or *exciting causes* may be, (1st.) Sudden suppression of the menstrual, or a haemorrhoidal discharge; (2d), tenesmus or violent muscular exertion; (3d), injuries by a fall or otherwise, and (4th), excessive coitus, and mental emotions tending to active congestion of the internal organs of generation.

Still another cause remains to be mentioned which might, with propriety, be classed both as predisposing and exciting, namely, *extra-uterine pregnancy*."

Then a general summary of the prominent symptoms:

"When the haemorrhage takes place from the under surface of the ovary, or within the folds of the broad ligament, the patient, having previously suffered more than usual from pain in one or other iliac region, will complain suddenly of severe cramp in the lower portion of the bowels, accompanied or soon followed by tenesmus, and weight referred to the loins and sacrum; there may be painful and difficult micturition, and if the quantity of blood poured out be great, faintness, and even complete syncope may now take place; the skin assumes a pale or sometimes anaemic hue; the extremities become cold, the countenance anxious, pulse small and frequent, and the abdomen tympanitic, and very sensitive to pressure, particularly over the seat of the rupture. At this stage of the case, a vaginal examination will rarely fail to detect a tolerably firm and irregular tumor, somewhat painful to the touch, and situated directly behind, or to either side of the uterus."

The Diagnosis is stated to be, in many instances, extremely difficult, such acute observers as Malgaigne and Nelaton, each having reported cases of their own error. Nevertheless, in general, it can readily be made out.

The principal diseases with which it is liable to be confounded are pelvic abscess, retroversion of the uterus, dislocated ovarian cysts or fibrous tumors, extra-uterine foetation, and possibly purulent collections. The methods are well described for avoiding mistake.

The treatment should be three-fold—*preventive, palliative, and curative*—preventing or removing the causative lesions, palliating by general and local measures according to the indications, and lastly removing the local affection. The author is evidently in favor of early puncture of the cyst by the trochar, and free evacuation of its contents, although he admits they may occasionally be absorbed spontaneously, or under the use of the ordinary methods—counter irritation, the internal use of iodine, mercury, &c., rest in the horizontal posture, and strict attention to the state of the bowels. He suggests puncture through the rectum as the most eligible, for what appear sound reasons, at least in the case given :

“(1st,) The posterior wall was thinner and more dependent; (2d), there seemed to be less danger of wounding branches of the haemorrhoidal or other arteries—no pulsations having been noticed on this surface of the tumor; (3d), the discharge, if long continued, would be less disagreeable to the patient; and, (4th), when spontaneous evacuation of the cyst takes place, it occurs more frequently, and with no less favorable results in this locality than in the vagina.”

The propriety of leaving the canula in the opening must be decided according to the place selected for puncture, its degree of tenuity or of thickening and infiltration—the cardinal principle being to secure free evacuation, with as little discomfort as possible to the patient. Examination of the recorded cases fails to convince the author either of the safety or utility of the injections usually recommended. The cases where it may become advisable are exceedingly rare.

Repeated punctures may be necessary, and he italicizes the proposition: "*I am fully satisfied that, in a retro-uterine hematocele of any considerable magnitude, it would be safer to penetrate the tumor twenty times than to 'always rely on absorption.'*"

The pamphlet, which our space will not permit us further to follow, concludes with remarks upon the frequency, causes, seat, and dangers of the disease. Four-fifths of the cases occur in married women. It is relatively, according to Prof. Simpson, more dangerous than pelvic cellulitis, but the author justly observes that these widely diverse affections ought scarcely to be associated aetiologically, as the remark might suggest. "*Encysted bloody tumors within the peritoneal cul de sac are extremely rare, those occupying the structures external to that membrane constitute the great majority—say 75 or 80 per cent. of the whole.*" The diagnostic signs of the particular location unfortunately are unreliable, for "*although a lateral position of the tumor will always indicate its sub-peritoneal character, yet the fact of its being central and occupying the whole posterior part of the vagina, does not, by any means, prove the contrary; and, secondly, that the position, size, or shape of the swelling—though if intra peritoneal always central both above the brim as well as in the vagina—possesses but little, if any, value in differential diagnosis.*"

We must refer our readers to the monograph itself for further details, commanding it to their careful perusal.

Advice to a Mother on the Management of her Offspring. By Pye Henry Chavasse, F. R. C. S. E., &c., &c. "Lo, children and the fruit of the womb are an heritage and gift that cometh of the Lord." Reprinted from the sixth London edition. New York. Bailliere Bros., 440 Broadway.

This is a little volume of 175 pages, the remarkable popularity of which in England has led to its republication in this country. We suggest to the enterprising publishers that the value, interest, and permanent importance of this volume

warrant a more durable enclosure than a paper cover. It should be in the hands of every mother, and be carefully read, re-read, and conned.

The three sections into which the treatise is divided, discuss, in the catechetical form, the management of Infancy, Childhood, and Youth. Having carefully examined the author's directions, we find them eminently judicious and sensible. The physician will be the means of great good to the families under his charge by seeing that they are put in possession of this manual. There are here and there points which we are disposed to disagree with, but taken together we find little to qualify the general commendation above given.

Medical Testimony in regard to the proper Medical Treatment of Joint Diseases. Henry G. Davis, M. D., 19 Park Avenue, New York city. Pamphlet. From the Author.

The object of Dr. Davis in the publication of this pamphlet is two-fold. First, to lay the mechanical part of the treatment before his brother practitioners, and, second, to establish his claim to the honor of its origination. "On the last point," he remarks, "that while in this country a medical fellow-townsman quietly misappropriated, without acknowledgement, the apparatus that I had freely made him acquainted with—in England there are two men fighting, even now, over the same apparatus, each claiming its invention prior to its introduction by the other, whereas, in fact, both have borrowed it from me." It appears subsequently in the paper that Dr. Lewis A. Sayre is the "fellow-townsman" alluded to. Dr. Davis adduces the testimony of Prof. Alfred G. Post, Dr. Gurdon Buck, Dr. John Watson, Prof. Raphael, Prof. Henry H. Smith, Dr. O. C. Gibbs, Dr. Parker, and others, as fully establishing his priority over all others, and especially claims to have shown and explained the apparatus to Dr. Sayre personally. His point seems pretty clearly made out.

Aside from the priority question, the pamphlet is interesting as containing diagrams of the apparatus, and plates illustrative of its successful use.

Hand-Book of Surgical Operations. By Stephen Smith, M. D., Surgeon to Bellevue Hospital, New York. Bailliere Bros., 440 Broadway.

This is a small octavo of 279 pages, with a flexible cover, adapted for the pocket companion of the military surgeon. From the observation we have been enabled to give it, we do not hesitate to say that it is the best adapted to its object of any work we have yet seen. It is truly wonderful, the amount of valuable information the author has contrived to get into this compact space.

The work is divided into six chapters, the first treating of minor surgery, including the titles, Instruments, Union of Wounds, Dressings, Hæmorrhage, Bloodletting, Counterirritants, Vaccination, Anaesthetics. The second chapter treats of the Wounds and Ligatures of the arteries: the third, Wounds of the Veins, and Varicose Veins: the fourth, amputations: the fifth, of Resections: the sixth, of Gun Shot Wounds, &c.; closing with a copious index.

The feature of the work is its profuse illustration, which saves at a glance pages of description. Single instruments, pocket cases, field cases, brigade cases, bandages, ligatures, incisions, and special operations—about everything is thrown into practical form which the eye can take in at once.

So far as we can judge from hasty perusal, the Author has been very fortunate in the text, elucidating the details of each part with clearness and precision.

We cordially recommend the work to our military compeers, and indeed to practitioners generally.

The war is producing something of the effect upon medical and surgical literature that the magnetic telegraph is upon general writing—great and steady condensation, with consequent increase of pith and force. Knowledge is being divested of its cumbrous and disfiguring wrappings and disguises. As Bacon wished, it is being digested to aphorisms. It will not do in these days, when a man has conceived a dozen or so of ideas, to straightway fall to making a big book about them;

the greater part borrowed from those gone before, a dozen pages his own, and the rest rhetoric—all that has gone by. There is a beautiful statue in the great boulder of medical science, and skilful mallets and chisels are fast clipping their way down upon it.

A Manual of Medical Diagnosis : Being an analysis of the Signs and Symptoms of Disease. By A. W. Barclay, M. D., &c., &c. Second American from the second revised London edition. Pp. 451. Philadelphia: Blanchard & Lea, 1862. From the Publishers.

In the preface to this volume, the author states: "The very early period at which a call has been made for a second edition of this manual, has prevented my attempting anything in its revision beyond verbal alterations and minor additions; in its plan and details the work remains the same."

Most of the readers of this Journal probably already have "Barclay's Diagnosis" in their libraries—to them we need say nothing. But if there be one so unfortunate as not to have it, we most earnestly advise him to possess himself of the work at the earliest moment.

We know of no book which can supply its place, either to the old or young practitioner. Many a knotty case will be cleared up on reference to its pages. For perspicuity and precision, for conciseness and condensation, it is a model among medical books.

In these days of "general principles"—under which term too many shelter themselves whilst failing to ascertain precisely what is the matter of the patient under treatment—it is refreshing to read a treatise which makes want of exactness in diagnosis the next thing to criminal. For "where knowledge is a duty, ignorance is a crime." To ascertain what is really the matter of the patient, is the first great "general principle," to which all others are subordinate, a fact which we regret to say we see every day lost sight of. It is the very text of the sermon, which once being thoroughly understood,

the "secondlys, thirdlys, fourthlys, application and improvement," follow almost as a matter of course. Remedies abound, and "the cry is still they come," an infinite host like the sands of the sea shore or the stars of heaven in number. And the tendency all the time is to begin at the wrong end of the matter. We are hunting for antidotes and specifics and what-not, with about as much wisdom as Crusoe would have manifested in coining moidores instead of sowing grain and breeding goats. We are filling a bottomless pitcher with new remedies, as the Homœopathists are filling infinity with infinitesimals. It is time to begin again, and if we are to take our pitcher to the fountain of Hygeia, let us see to it that we get hold thereof by the right handle. Diagnosis—diagnosis, *iterum, iterumque*, that is the thing. If we would have successful treatment any thing more than a lucky accident, this first standpoint must be gained. When Light first was, then the world and man and all animals and plants and trees were sure to follow. Without the *Fiat Lux!* these others were problematical.

For this reason we hailed the first edition of "Barclay's Diagnosis" with feelings much more akin to rejoicing than we did —'s great volumes on Practice. Because Dr. Barclay seemed to give us the *pou sto*, with a chance to use the lever. The big volumes—chaotic, "dry rubbish shot here," with much confusion of "what is the matter"—pelted poor patients in the darkness with all sorts of missiles, many of them, even in the light, of most questionable shape.

Briefly, Dr. Barclay's work is altogether invaluable—at all events worth whole shelves of speculative treatises, and sundry dozen volumes of descriptions of wondrous drugs thrown in "to boot."

We would not be understood as undervaluing medicines or disparaging their use. Not in the slightest degree. The army should be thoroughly disciplined in the use of their weapons, and should be provided with all reasonable ammunition, but it is scarcely worth while to charge bayonet at the

winds, or burn powder at the ocean waves. The whereabouts of the enemy, his strength and arrangement of his forces must first be ascertained, and then don't, after the expectant quasi homœopathic style, fire pop guns at the elephants and squibs at his iron mailed men of war, or on the other hand, in "heroic" fashion, touch off hundred pounders at fleas, and explode magazines under bubbles.

Whatever may be the facts at present with reference to Therapeutics, there is no good reason why Diagnosis may not approximate an exact science, and of this patent truth the present volume is an unimpeachable witness. The greater portion of it is, beyond debate, upon the level of true science. Many particulars still remain to be cleared up—as in other sciences. But as a clear headed, sagacious, intelligent, and faithful guide, we commend Dr. Barclay in the strongest terms.

Etiology of Phthisis.—Dr. Henry J. Bowditch, President of the Massachusetts Medical Society, in his recent Anniversary Address, enunciates, as the result of prolonged and arduous investigation, the somewhat startling proposition that the main influence begetting Phthisis, is *prolonged exposure to a damp atmosphere by continued residence in damp localities.*

To sustain this view, he adduces an "immense mass of statistical facts which he has collected from every town in the Commonwealth, and which were laid before his audience in a way to produce a most profound impression." "Some of the evidence offered," says the *Boston Medical Journal*, "was of the most surprising character; stamping upon certain portions of towns the deadly seal of the destroyer, and even attaching to particular houses an almost certain doom to the residents; and in every instance in immediate connection with the influences which, in accordance with this theory, are the principal cause." The editor confesses that in listening to Dr. B's eloquent exposition of his doctrine, he could hardly resist the conviction that his arguments were unanswerable. We coincide with his expressed determination to wait until the address

is in print and its doctrines be coolly and dispassionately examined. It must be admitted that there are serious difficulties, in the shape of matters of fact and common experience, in the way of speedy reception of this great generalization. The anniversary oration before the Massachusetts Medical Society is beginning to get sensational. We shall get to looking for that yearly festival and its utterances "with feelings of no ordinary emotion."

English, American, and French Hospitals.—The effort is being made in Paris to escape the unfavorable comments of the world with regard to the larger proportionate mortality of the French hospitals in comparison with American and English, by stoutly and plumply denying credit to the statistics of the latter. It is notorious that the English have done the same by the Americans for a long time.

M. Briquet, the French champion, says that he believes American statistics less than all the others. He illustrates the folly of trusting such evidence, by alluding to M. Malgaigne's remarks with reference to the Massachusetts Hospitals—“*Now*,” says M. Briquet, “*there is not a town in America which bears that name!*” What will the “Hub” do about it?

Havelocks.—P. A. O'Connell, Surgeon 28th Massachusetts Volunteers, in a communication to the Boston *Medical Journal*, thus speaks of the noted “Havelocks.” “On the Potomac, last summer, they were found of some use in cleaning guns, indeed, but in most cases it is respect alone for the giver that prevents one from turning them to use in some such way—for they add to the weight of the cap, without adding to one's comfort. If they could be made so as to wear without the cap, they might become of some service.”

It would seem that the poor Havelocks have had their day.

The Quinine Prophylaxis.—Drs. Gray, Homans, and Hodges, the surgeons specially detailed by the Governor of

Massachusetts to visit the army in Virginia, report to the State Surgeon General, and the following sensible remarks we extract:

"The diseases were principally of a typhoid character, genuine typhoid fever, typhoid pneumonia, dysentery, diarrhea, acute and chronic rheumatism. The type of all of them may be said to have been generally mild, in spite of the great fatigue, and, to many, exhaustion, from work in the trenches by night and corduroying the roads by day, with other labor incident to military encampments, and frequent exposures to long-continued, cold, north-east rain storms.

"*Malaria was said to be acting powerfully, and therefore quinine must be administered in large doses. The ill effects from this large dosing was found to be much greater than that from any supposed malarial influence. The improvement in every instance where the quinine was either entirely stopped or given in greatly reduced quantities, was too marked and too continued to leave a shadow of a doubt as to the exciting cause of the persistent head ache and diarrhoea. The good effects of stimulants, brandy or whiskey, was immediately seen, when we had some to give.*"

Is not this monstrous "quinine prophylaxis" nonsense about "played out?" The word of its promise is not even kept to the ear, and the humbug proves dangerous as well as expensive. We are thus every day becoming more thoroughly convinced (if it were needed) of the truth of the propositions we laid down upon this subject early in the war. Visionary theories will not abide the touch of experience and truth.

"*Williamsburg.*—It is estimated that there were some thirty or forty thigh amputations after the Williamsburg battle. Primary amputations have proved more successful than secondary.

The Military Department.—Some little matters about the medical department of the army seem to demand a change. Thus, Dr. A. H. Baker, editor of the *Cincinnati Medical and Surgical News*, writes to his Journal from Pittsburg Landing, April 13th:

"We arrived here about 10 A. M. to-day, and in less than thirty minutes, witnessed an amputation at the shoulder joint;

the operation was performed by a surgeon on one of the boats from Cincinnati. The poor fellow will only enter the portals of eternity a little earlier than if he had been permitted to fight his last battle undisturbed. I make this remark because I have been over the field of battle, and have seen enough to convince me that our success with the knife, at this period, must be a failure, and for one, I am determined to depend upon *conservative surgery* as affording the best chance for *life*, and, surely, for *limb*. I am fully satisfied that many of the brave men who have been wounded in battle since the commencement of this unholy war, have been sacrificed upon the altar of a mistaken ambition for fame, as an operator. It does seem that the soldier is a legitimate subject for horrible abuse, that the moment he is entitled to the name, he becomes a soulless mass of animal matter, only fit to be shot at, and when he escapes death from the immediate effects of the minnie and starvation, he can find it under the knife of the *surgeon*; if such we can call the man who is willing to lay down the advantages of a scientific education and take up the character of a worthless tyro, or a paid demonstrator. But, Doctor, I do not wish you to misunderstand me, and to suppose that I have reference to *army surgeons*, for, my dear sir, they have been outrageously abused by the press, and that, too, without a knowledge of the situation in which these men are often placed. Let me illustrate by the facts which present themselves here. On Sunday the 6th, the Confederates took possession of all our stores, and after the battle was ended, our surgeons found themselves without the necessary means for effective treatment, and thus the wounded were, in many instances, neglected until a *new set*, with supplies and ready hands, made their appearance to try their skill and to witness the result of *secondary* amputations, to which my remarks, at present, refer.

One thing more presents to my mind a horribly mistaken philanthropy; it is the *removal* of the wounded from the field of devastation. The whole thing is wrong, and comes in as the *finishing stroke*. Behold a man severely wounded, a bone broken, much exhausted, and just in a condition to convalesce, with care; he is just taken up by *carriers*, and on his way to the boat. Hear him complain at every jar, and see him nearly fainting when laid upon deck; here he must undergo various processes, such as washing, dressing, etc., etc., all done in a hurry, no time to wait; then he is *fixed* upon the boat for a trip, and is kept alive by stimulation until ready to start, when

he is again subjected to great suffering, as his constant moans will tell, by the shaking of the boat. But if he lives, his sufferings do not end here. When he arrives at our landing, then he will be again brought under the carrying operation, or some other, perhaps more dreadful, when, at last, he will be deposited in one of our military hospitals, there to end an existence rendered miserable by the mistaken kindness of a philanthropic people.

"The question may be asked, what shall be done? I am free to answer, build temporary hospitals on the ground, or near the battle field, and there let them be supplied with everything necessary to afford the best possible chance for recovery. By this plan, the cost would be less, and the attention better, for the reason that changes would be unnecessary; as it is, those under the care of physicians on the boat, must pass into other hands upon their arrival at the point of destination, which may result in change of treatment to the disadvantage of the patient."

The medication of the wounded and otherwise invalided soldiers, also requires reform. From the highest authority, we have it, that on one of the hospital transports this was the state of facts. The invalids having been received, they were put under the care of the medical gentlemen on board, and a well known physician and apothecary of this city was detailed to dispense the medicines. Curiosity led our informant to look over the first prescriptions sent up to the dispenser. It is a positive fact that of the first twenty-eight, *ten* contained Hydrarg. Subchlorid and Pulv. Ipecac comp.; ten contained Hydrarg. Subchlorid and Pulv. Ipecac, and eight contained Tinct. Verat. Virid. How long this continued he is unable to state, for at that point he ceased his investigation. To his credit, be it said, that he suggested to the apothecary the benevolent substitution of Carb. Soda for the Hyd. Subchlor. and Brandy for the Verat. Virid.

We have hesitated before giving this humiliating record—for humiliating it is in the last degree. There are some men who cannot distinguish an attack upon abuses from an attempt to overthrow. Some months ago, when we remonstrated in mild terms against the frequent salivations at Cairo, weak-

kneed and tender-footed gentlemen feared it might "hurt the profession" to have the facts known. When almost an entire transport load of salivated soldiers is received at once on the Tennessee, and such facts as we have given above are published, we suppose there will be another flutter among the birds. But it cannot be helped—"what we have written is written," and we have only put it down to denounce the enormity of the treatment. It is simply an outrage upon scientific medicine. It is just such things as this which have built up the fortunes of the quacks of every color and cognomen. We know a man in this city, calling himself a "regular physician," who used to teach parents to feed their children calomel on their bread and butter! The result has been that the *surviving* members of the families who once employed him, are homœopaths. About the last of his patients, to our own knowledge, was murdered by the same *infernal* treatment, not two years ago. And those who cultivate medicine as a science, and endeavor to practice according to its precepts as such, have to share the odium which these excrescencies, or worse, upon the medical body bring upon it. Medical societies and associations may pile their constitutions and codes heaven high, and yet not escape the effect.

We have, on good professional authority, been informed that in one camp, which has numbered its thousands, the general direction given by the ranking surgeon was that, whenever a patient's tongue tended to become dry and red, he should at once be given *Donovan's Solution*, in large doses. This was the sole test and criterion of judgment. The mortality bills at that post were high, but it is believed that we shall have some statistics with reference to the power of that peculiar specific, by and by—showing that of the many who took it, some recovered, and thus a new leaf in medical arithmetic.

It seems to the writer about time that this sort of thing should come to an end; and the way seems clear to the accomplishment of that desirable result.

The army and navy must have educated medical attendants,

for the lives of soldiers and sailors are of immediate necessity for the preservation of the honor and existence of the nation. And the medical man must be educated and instructed up to the level of the times—for Medicine has progressed at an equal step with other sciences, and the man who does not keep step with it, must fall into the rear. It is no discredit to the great medical army to say that its infirm members and valetudinarians are behind. These invalids must "post up," or take the consequences. The time has come when a man can no more cover up his ignorance under his profession than, as we have elsewhere observed, under his nationality—he must stand or fall according to his knowledge, and power of applying that knowledge to the business in hand. All surreptitious props must sooner or later fail. The war is pulling down several.

Acute Tropical Dysentery.—In the *Edinburgh Medical Journal*, Dr. R. W. Cunningham, Assistant Surgeon to H. M. 4th Bengal Europeans, records his experience in the use of Ipecacuanha in larger doses than those ordinarily employed in the treatment of dysentery. His plan is on admission of the patient, to apply a large sinapism over the epigastric region, and then exhibit thirty minims of Tinct. Opi., to render the stomach tolerant of the remedy. Half an hour or an hour afterwards, from a drachm to a drachm and a half of powdered Ipecacuanhais given at once. It produces considerable nausea, but rarely vomiting, although the latter may occur under one or two hours afterward. General sedation results, and a copious perspiration breaks forth. The countenance loses the expression of suffering; the tenesmus and abdominal pains subside, the stools are lessened in frequency or cease for twelve or twenty-four hours; the pulse become full and soft. A considerable degree of languor and depression naturally follow, but the next evacuations are unaccompanied with tenesmus, free from blood and mucus, and hold in suspension small masses of foeces. A repetition of the dose may sometimes be necessary. Chicken broth and arrow root are

the only diet allowed. If any tendency to debility is subsequently manifested, a few doses of Infusion of Chiretta with Nitro-Muriatic acid are sufficient to complete the cure.

The *rationale* of the process is sufficiently clear, and the writer's exposition does not require repetition. He states that relapses are less liable to occur than after the other methods of treatment adopted in the army. He suggests this method as peculiarly valuable at the outset of the disease, and as army surgeons have this advantage over practitioners in civil life, that they can take the disease under treatment in its first stage, it is especially valuable to them.

We may remark that several of our correspondents in the army, who have tried this *old* practice, speak very highly of it, but say that neither Ipecacuanha nor any other medicine they have found will prevent the return of abdominal disturbance in those who persist in the constant violation of the most simple and well known rules of health. One surgeon, almost with tears in his eyes, confessed that the leathery meat fried in tallow, and half cooked beans, would make his men sick notwithstanding quinine prophylaxis, and the swallowing of fragments of hard bread, as ostriches do nails, to favor digestion.

About "Nationality."—A correspondent from the seat of war, a month or two since, took occasion to reprehend the inefficiency or ignorance, or both, of one or two medical men, at the time in charge of a hospital transport on the Tennessee river. It happened that the aggrieved individuals were foreigners of a particular "nationality." We believe our correspondent spoke of them as "Dutchmen"—precisely as he would have spoken of them as Frenchmen or Yankees, if they had happened to be scions of either of those nations. By a dodge, adroit enough for a slippery politician or wily lawyer, the army doctor has slid under the cover of his "nationality," and discharges upon us and our correspondent a hat full of wrathful *Deitsch* expletives through a German paper in this

city, among which our limited acquaintance with the language enables us to detect "Know Nothing" in startling prominence.

We beg leave to assure our indignant friend that the cuttle fish plan will not work. Like the ostrich, he may hide his head (under his nationality if he chooses,) but he cannot hide that other prominent portion of his person, which on the occasion alluded to by our correspondent, was so liberally displayed.

No man surpasses our correspondent or the editor of this Journal, in respect and admiration for the German nation, its magnificent attainments, its profound scholarship, its gigantic intellectual labors. The world could not spare Germany, and the great thoughts, which move the race so wonderfully at the present day, owe their development more perhaps to the German mind than any other. But we shall enter into no needless panegyric. Among our subscribers, and among our personal friends, we are proud to reckon scores of that nationality, who in every thing which characterizes the high minded professional gentleman and accomplished scholar, "are first among their equals," of any nationality.

We simply toss back the epithets so lavishly scattered by this army surgeon, (Heaven save the mark!) as totally inapplicable in our case—the coat fits in no particular. Our educated German friends have not the slightest desire to have ignorance and pretension covered by their nationality.

It seems this army doctor's horse stumbled and sprained the rider's ankle, which, although it did not prevent the doctor's walking with scarcely a limp, does enable him to assert that he is suffering from wounds received in the defense of his adopted country, and to a certain extent prevents his emptying the remaining full vials of his wrath upon our correspondent's devoted head. We await with trepidation his recovery from his *wounds*. Meanwhile let him ameliorate the tedium of his hours whilst awaiting convalescence, by ruminating upon this—our correspondent assures us that he is prepared to prove his former statements, and, if necessary—*more too*.

We candidly advise our wrathful friend to be content with

the laurels he has already won, and allow our friend, the ex-Governor, the use of his valuable columns for more profitable news or discussions.

Carbonate of Ammonia in Scarlatina.—Dr. Spooner, in his very sensible essays, to which we alluded last month, observes with reference to the great claims made for Carb. Am. in the treatment of Scarlatina, (referring particularly to Dr. Peart's work,) that there is no doubt a valuable truth contained in the accounts put forth, but, unfortunately, the statements are too extravagant, too unqualified, and allowing no exceptions. We extract the following, as containing sound thought as well as practical directions with reference to this particular agent:

"During many years of extensive practice among children, we are assured there was no death; in hundreds of consecutive cases, in every *form* and *stage* of the disease, the ammonia was given with uniform success. Thus the account promises too much, more than can be realized. It promises more than can be realized from any known remedy. We have no remedy of which it can be said, it will never fail. Vaccination does not always prevent small pox; opium does not always relieve pain; mercury does not always cure syphilis; nor does cinchona always cleanse the system of the miasma of intermittents. All that we can say of any medicine is, that it is useful, and the best we have for a specified purpose. If, encouraged by the early accounts of this medicine, a physician should be induced to use it, there is more than an equal chance that he will be disappointed; not, however, from want of power in the medicine, but, as I shall presently show, from a want of knowledge of the proper way of using it. Thus, as it too often has been, these physicians, in their earnestness to recommend a valuable medicine, did much to prevent a fair trial of it by others.

Another reason is to be found in the qualities of the medicine itself. Ammonia is a difficult medicine to give to children; and often requires much decision on the part of the physician and energy on the part of the nurse to secure for it a fair trial; and when there is ulceration in the throat, it is impossible to give it. This difficulty is a serious obstacle to the use of this remedy, especially in the hands of physicians

who are skeptical in regard to the benefit of any medicine in scarlatina.

A third reason is to be found in the different ways of using the ammonia by different physicians. This is the most important reason. Indeed, this is the chief cause of the difference of opinion among physicians in regard to the value of many medicines. Different physicians use the same medicine in different doses; or they give it in *different stages* of the same disease, and very naturally come to different results. The right stage for giving a medicine is a matter of quite as much importance as the size of the dose to be given. It may require many years after a medicine has been brought into notice, before the precise limits of its usefulness can be defined — or the best way as to form and quantity of administering it, or the right stage for giving it, shall be determined. In the mean time, there may be every variety of opinion in the profession as to its usefulness. A striking example of this can be found in the history of cinchona as a remedy.

The bark of cinchona was first brought into notice as a remedy for fever and ague by a physician in 1632. For a series of years it encountered the prejudice of the profession, and, it is said, it would have fallen into oblivion had it not been for the activity of the Spanish Jesuits. Given to the Arch Duke Leopold, of Austria, at the commencement of the cold stage of an intermittent fever, it produced little or no effect, and consequently it was declared to be useless. Given to an alderman of London, and he died while using it, and it was condemned as a dangerous medicine. Oliver Cromwell was sick with fever and ague, and languished and suffered and died from it; and his physician was afraid to use the bark in consequence of its dangerous effects in similar cases. At length Sydenham, who was at first opposed to its use, candidly watched its effects, became convinced of its power, determined the quantity and frequency of its dose, and that the time of giving it was between the paroxysms, and not during them, as had been the practice.* Thus it appears that a valuable remedy may fail from error in using it. This remark is applicable to the carbonate of ammonia in scarlatina. Physicians have given it without knowing how it should be given, and consequently have often failed to obtain good results from it.

In using the subcarbonate of ammonia, there are three rules to be observed:

1. Give it as early in the disease as possible.

* Good's Study of Medicine, Vol. II, p. 130.

2. Give it in as large doses as the patient can bear, and repeat it every two, three or four hours, according to urgency of symptoms.

3. Continue it until there is improvement of the symptoms, which can usually be seen on the second or third day.

The first rule is of paramount importance. I am confident that some physicians have failed in the use of ammonia, from not observing this rule. With our present knowledge, we cannot define the limits, as to time, of the usefulness of this medicine. So far as I have observed, its effects have been most striking when given at the very onset of the disease; and in a few cases, when forty-eight hours had elapsed before commencing the use of the medicine, I have seen no benefit from it.

The usual dose of the medicine is from three to five grains, given in simple syrup, or in water saturated with sugar. There is a serious difficulty in regard to the dose of this medicine, owing to a great difference in the article itself, as received at different times from the apothecary. When first made, the subcarbonate of ammonia, or, as the chemists call it, the sesqui-carbonate of ammonia, is solid and semi-transparent, giving a strong smell and taste of ammonia. On exposure to the air, it effloresces, and is converted into a bicarbonate, losing its ammoniacal smell and taste. In its first state it is too pungent; and if kept too long, it *may lose* its specific power. The article that I have used, has had the smell and taste of ammonia, but not so strong as to render it difficult to swallow.

As to the third rule, I have seen decided improvement in little more than twenty-four hours, when less than 30 grains had been given; and I have continued its use until more than two drachms have been taken. Improvement in most cases will take place on the second or third day, when the medicine has been given early on the first day of the attack. In one case, in which the medicine was not commenced until the second day, it was continued through five days, and with decided benefit. At one time I thought that the smell of the ammonia in the urine might be taken as an evidence that it had produced its specific effects upon the system. In several cases this odor has been well marked, and has compared in time to the improvement in the symptoms. But subsequent observations have persuaded me that improvement often takes place without the ammoniacal smell.

It has not been my practice to give the ammonia in cases

which at the beginning were mild; although I have sometimes had reason to regret this course, in consequence of these patients having suffered from troublesome sequelæ, which the ammonia would have prevented.

The patients to whom I have given this medicine, have, for the most part, presented the following symptoms: Convulsions, or distressing vomiting, with anxiety, prostration of strength, and quick pulse. Convulsions almost uniformly usher in cases of a violent character; the other symptoms mentioned are usually precursors of severe cases.

Deodorizing the Breath and Cleansing the Teeth.—We find the following formulæ, which may prove occasionally convenient, in the *Druggist's Circular*. It is important that the Hypochlorite of Lime employed should be fresh and good, coming up to the standard of the pharmacopœia:

DR. ANGELOT'S PREPARATIONS.—The following preparation has been employed by Dr. Angelot, of Briancon, in the treatment of ulceration of the gums, a very frequent complaint with soldiers: Take of hypochlorite of lime, from 10 to 25 grains: mucilage of gum-arabic, $1\frac{1}{2}$ to 4 drachms; syrup of orange-peel, $1\frac{1}{2}$ to 2 drachms. Mix thoroughly. This mixture is employed as a lotion to the ulcerated gums.

PASTILLES OF HYPOCHLORITE OF LIME.—Several formulas for the preparation of the pastilles have been successively published; these preparations have the advantage over those which are liquid, of being more easily transported.

First Formula.—Take of hypochlorite of lime, 7 drachms; sugar, flavored with vanilla, 3 drachms; gum-arabic, 5 drachms. The pastilles are made *secundum artem*, so as to weigh from 10 to 11 grains. Two or three of these pastilles are sufficient to remove from the breath the disagreeable odor produced by tobacco smoke. The pastilles thus prepared have a gray color, and become quite hard; if pastilles of a white color are required, the following substances are employed:

Second Formula.—Take of dry hypochlorite of lime, 20 grains; pulverized sugar, 1 ounce; gum tragacanth, 16 grains. The hypochlorite of lime is triturated in a glass mortar, and a small quantity of water is poured upon it; it is then left to repose, decanted, and a second quantity of water added; the two liquids are filtered, and the gum and sugar added so as to form a paste. This is divided into pastilles, weighing from

12 to 16 grains. If it is desired to aromatize the paste, one or two drops of any essential oil may be added; the oil should be added to the sugar and gum before the paste is formed.

DESCHAMPS' PASTILLES.—Take of dry hypochlorite of lime, 2 drachms; sugar, $8\frac{1}{2}$ ounces; starch, 8 drachms; gum tragacanth, 1 drachm. carmine, $2\frac{1}{2}$ grains. The pastilles should be made so as to weigh about $2\frac{1}{2}$ grains; five or six may be taken in the space of two hours. By employing starch in the preparation of the lozenges, Deschamps wishes to prevent the yellow color which they would otherwise assume.

DESCHAMPS' DENTIFRICE FOR REMOVING THE YELLOW COLOR FROM TEETH.—Take of dry hypochlorite of lime, $\frac{1}{2}$ drachm; red coral, 2 drachms. Triturate well and mix thoroughly. This powder is employed in the following manner: a new brush is slightly moistened, then dipped in the powder and applied to the teeth. According to the author, a few days use of this powder will produce a marked alteration in the appearance of the teeth, which will acquire a white color.

Nitric Acid Fumes.—Two men, employed in a chemical manufactory at St. Denis, were found dead in the street soon after leaving their work. Their bodies were removed to the Morgue for examination. The medical opinion was that their death was due to the inhalation of the fumes of nitric acid. It is suggestive of further observations and precautions with reference to the large class of operatives in manufactories, telegraph offices, &c., who are constantly more or less exposed to the fumes of this powerful agent. It would seem that measures might readily be adopted to prevent deleterious or dangerous results.

Alveolar Abscess.—W. H. Atkinson, M. D., in the *Dental Cosmos*, writes that molecular degeneracy *must* precede all idiopathic formations of pus. In traumatic lesions where a foreign body is forced within the tissues, a kind of artificial abscess is formed, an exudate partially or completely encysting it, whence, if soluble, the foreign substance is gradually absorbed, or reduced to its smallest compass. If insoluble, and located not too near centres of motion or certain important

organs, it may remain inert—the abscess spontaneously cured without a rupture of the cyst. But when the molecular degeneracy is more extensive or pervading the cyst is less, or not at all defined, pus may burrow every where “around and beneath muscle, tendon, blood-vessels, and nerves, until the poor patient is literally one bag of illy formed pus and broken down adipose tissue, between the deep and superficial layers of fasciæ.

Cases of what is popularly called “ague in the face,” are closely allied to this sort of molecular degeneracy, but recently induced by excessive fatigue, bad feeding, or deficient food, or food of poor quality, cold, or excess of indulgence in the venereal function, or depressing afflictions of the affections,” and are very apt to be tedious and harrassing to patient and practitioner.

This degeneracy it is our first duty to correct by controlling the aberrant forces and restoring nutrition by better regimen and morale. General sedation of the main trunks of the vascular system, and local applications, cold, warm, or hot, to the tumefied face are recommended. These may prevent altogether, or at least localize, the formation of pus. When the abscess points, open it and dress it morning and evening for a few days with equal parts of pure creosote and tincture of iodine, gradually extending the time until the discharge resembles the white of an egg, then the treatment may be suspended, but the case should still be watched as relapses are not unfrequent. A bit of cotton, or of cork, spunk, or soft wood, on the end of a knitting needle, will be found a convenient means of dressing the cavity—leaving the plegget in the part. If the depth is miscalculated and the cotton projects, cut it off carefully, and apply over it, between the wound and the buccal walls, another pellet of cotton, wet in Tinct. Arnica, diluted with four parts of water.

When it is remembered how often these so often neglected abscesses lay the foundation of caries and even general necrosis, or other diseases of the maxillæ, it will be seen that

too much care can scarcely be exercised to prevent such disastrous results.

Cerebro-Spinal Meningitis.—Occasional cases of this fearful form of disease have recently appeared in this vicinity, and also in some parts of Iowa, Missouri, Kentucky, and Tennessee. It is not too much to say that any practitioner, who has passed through an epidemic of it, had rather encounter almost any other form of disease to which the human system is liable. Unfortunately, the diagnosis and morbid anatomy are much better understood than the appropriate treatment. The very best practitioners we have ever known, have had little reason to plume themselves upon their success with it. It is safe to say that its treatment is, as yet, as unsatisfactory as that of Asiatic Cholera—the results are, on the large average, even more fatal.

One error should be avoided—it is not allied in nature to *Congestive*, *Pernicious*, or *Malignant* “Malarious fever,” as ordinarily described in the books or understood in practice. The “Pernicious Remittent” of Wood, and other authors, is as distinct from it as a severe summer diarrhoea is from Asiatic Cholera. It is not a less or more severe form of remittent, or intermittent, fever, but a totally distinct affection, and should not by any means be confounded with it. There may be chill, and coma or delirium in each, but it is the loosest possible observation and judgment that can be decided by these coincidences.

We do not propose to rehearse the symptoms or special diagnostic marks, as we could add but little to what the text books contain, but merely wish to direct the attention of the young men of the profession to the well defined distinctions between the two forms of disease, recently, we regret to say, most remarkably ignored by the published *decision* of a medical gentleman who had no right to commit so grave an error in diagnosis.

The Pernicious, Congestive, or Malignant form of Inter-

mittent or Remittent fever, although attended with the gravest symptoms and most dangerous without treatment, is most singularly amenable to the ordinary well known treatment, and is readily controlled.

Cerebro-Spinal Meningitis, on the contrary, presenting some symptoms in common with the foregoing, yet affords many strikingly distinct symptoms by which it may be positively diagnosed, and, as before remarked, is unfortunately one of the most intractable of diseases with which we are called upon to cope.

Climate of California in Phthisis.—Dr. James Blake, continuing his series of articles on the climate of the mountain ranges of California in relation to the treatment of Phthisis, has brought together a table of thermometrical observations which strikingly illustrate its advantages. The data go to show, however, that the climate is very diverse in different parts of the State. Thus, the climate of the Sierras very closely approximates that of the Sacramento valley, which is far less favorable as a summer residence for consumptive patients than that of the Coast Range. During the month of July, the most agreeable month for living in the open air, the range of temperature on the Coast Range was never below 57 deg., and never above 82 deg., with a variation during the twenty-four hours never exceeding 20 deg.

Dr. B. observes that the temperature is by no means the sole advantage, for together with this the atmosphere is dry and bracing, and the sky unclouded for months together. The last summer there was no rain from the beginning of May until the end of November, until which latter time his patients remained abroad. About the middle of September they began to descend towards the plain. The lower ranges offered a climate well adapted to the early summer and late autumn months. The highest elevation of the camp was about 4,500 feet.

Game is abundant, and thus the camp is well supplied. At

the coming on of the winter and rainy season, he advises patients to seek a similar climate to the California summer in the highlands of Mexico, which may easily be reached by steamers and sailing vessels from San Francisco via Mazatlan three or four times a month, and from thence by a short land trip of eighty miles they can gain the regions of perpetual summer. The country, he remarks, is well settled, and as large mining operations are carried on there by our own countrymen, all sorts of supplies can be secured. Dr. Blake concludes his paper by asserting his belief that in no other part of the civilized world can such favorable conditions be found for treating Phthisis as on that coast. That it cannot be cured by drugs, is a fact patent to the profession. That it can be cured by out-door life in the mountain air, is a fact of which he has seen abundant proofs, and which others in crossing the Plains have had opportunities of verifying. His own opinion is that a large proportion of cases of Phthisis will be found to yield to one or two years open air treatment, and to carry out that plan the California Coast Range is the best known locality.

Antagonistic Effects of Opium and the Mydriatics.—Several cases have recently appeared illustrative of the correctness of Dr. Lee's position in the paper on this subject in the American Medical Journal. Poisoning by Belladonna and Stramonium has been speedily relieved by the exhibition of full doses of Morphine; and *vice versa*, poisoning by opiates has been controlled by large doses of Belladonna. An incidental practical suggestion is, that it is scarcely worth while to mix these articles in the same prescription, provided it is intended to secure a decided result.

Iodide of Potassium.—The Times & Gazette remarks that Iod. Potassii is not only maintaining its reputation as an alternative, but really gaining in general favor. Although very valuable in rheumatism and in securing absorption of inflam-

matory products, it is yet the most strikingly beneficial in tertiary syphilis. The old bugbears—wasting of the breasts and testicles—are now never heard of, and *iodism* is certainly exceptional. Eight and ten grains are now with many an ordinary prescription. Dr. Gull and Mr. Paget strongly commend the addition of ammonia as enhancing its activity. Some surgeons combine it especially in brain and nerve disorders, with *Tinct. Nucis Vomic*.—it is asserted with great advantage.

Arsenic in Ophthalmia.—Mr. Critchett commends Arsenic in certain chronic forms of Ophthalmia, especially in young persons. It is chiefly useful in intractable cases of purulent Ophthalmia, attended by intolerance of light and a feeble and irritable state of the system generally. It may in these cases sometimes be well combined with iron, or the steel wine. For a child of five years, he orders a minim of the *Liq. Pot. Arsenitis* in a teaspoonful of the steel wine. Upon which suggestion we shall make no comment, but subjoin a *feu de joie* from Dr. O. W. Holmes:

The more you examine the structure of the organs and the laws of life, the more you will find how resolutely each of the cell-republics which make the *E pluribus unum* of the body maintains its independence. Guard it, feed it, air it, warm it, exercise or rest it properly, and the working elements will do their best to keep well or to get well. What do we do with ailing vegetables? Dr. Warren, my honored predecessor in this chair, bought a country-place, including half an old orchard. A few years afterwards I saw the trees on his side of the fence looking in good health, while those on the other side were scraggy and miserable. How do you suppose this change was brought about? By watering them with Fowler's solution? By digging in calomel about their roots? Not at all; but by loosening the soil around them, and supplying them with the right kind of food in fitting quantities.

Which we think hits that case, and some others, exactly.

Acupressure.—Dr. E. L. Cooper, in the San Francisco

Press, writes the obituary of this surgical humbug, so popular with certain journalists a couple of years ago. We predict a similar early death for a similar humbug, to relieve local pain, which has gained much eclat within the same period.

Ovariotomy.—M. Nelaton, finding this operation condemned on what appeared to him unsubstantial grounds by the French surgeons, recently visited England on the invitation of Dr. I. Baker Brown, to observe the results of his operations. He found that Dr. B. had performed the operation with marked success. His conclusions, as given by a correspondent of the San Francisco Press, are as follows:

1. In presence of multilocular cyst, at its debut, before it has occasioned grave accidents, I should abstain from the operation. Because there are examples of the tumor remaining stationary for years, without causing even distress.
2. I should also abstain, in case of an old cyst, which has undermined the constitution of the patient.
3. I think the opportune moment to be, when the cyst commences to swell up rapidly, and the danger of serious accident is imminent. Then, and then only, would I operate.

Large Doses of Morphia.—Mr. Parish, of Philadelphia, having some time since called attention to the fact that Morphia is frequently given in much larger doses than formerly, the proposition was called in a question by another apothecary. The Druggist's Circular very properly observes: "The simple denial on the part of our other correspondent does not remove the fact that some doctors prescribe the narcotic in such doses, any more than it acquits a thief if he brings ten witnesses who have not seen him commit the crime against one who witnessed it."

What does the Circular mean? Are not such "comparisons odorous"—"very tolerable and not to be endured?" The way our contemporary puts the case annoys us, but of the fact there can be no question.

The reason is because physicians now realize that pain is

by no means salutiferous and should be put down: because it is found that many of the supposed beneficial effects of calomel and other drugs were really due to the opiates with which they were combined; because they have found, practically, that opium, or morphine, its principal exponent, is competent to produce the same effects, when properly managed, formerly expected only from bloodletting, or other evacuants, and powerful sedatives. The nonsense about its "locking up the secretions," is pretty effectually exploded, and almost everybody knows it ranks next to and sometimes above quinine as an antiperiodic. These are only a few of the reasons why.

Adulteration of Milk.—It is stated that Borax is employed to prevent milk from turning sour, and also to impart more consistence, so as to appear more creamlike.

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